

SC FOREST PRODUCTS

INDUSTRY TRADE REPORT: 2022



South Carolina
Forestry Commission

TOTAL 2022 FOREST PRODUCTS EXPORTS & IMPORTS

Forest products total international exports

South Carolina's forest products exports totaled \$1.12 billion in 2022. This is 8% less than the 2021 total of \$1.22 billion. When nominal dollars from past years are adjusted for inflation using PPI (real dollars), exports have been in decline since 2017 when they reached \$1.86 billion (Fig. 1).

Pulp and paper combine to be the largest contributors to the export figure, with \$920 million combined. These sectors consistently produce the largest export volumes and dollars annually. With seven large paper mills in the state, this is not likely to change soon. Not only did pulp and paper have the largest total, but woodpulp also had the largest percentage loss compared to 2021 at -14%. Solid wood products are in second place behind pulp and paper in total export dollars, with \$129 million, although they are down -11% versus 2021. The next largest sector is wood chemicals, with annual exports of \$53 million, which is down -13% from 2021. The smallest sector in forest products is wood furniture. With total exports of \$4.5 million, this modest sector did return one of the smaller decreases of -5% over 2021 (Figs. 2 and 3).

**\$1.12
Billion**
2022 total exports

-8%
2021-22 decline

**\$920
Million**
Pulp and paper
exports in 2022

Fig. 1 - SC total forest products exports & imports

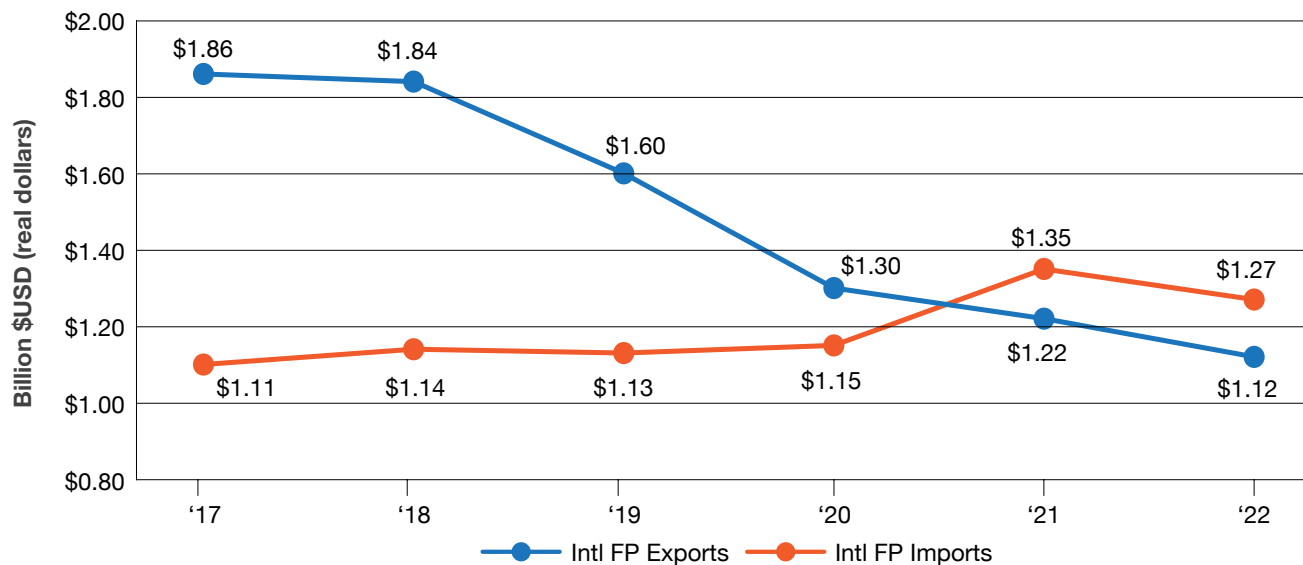


Fig. 2 - SC forest products exports by sector

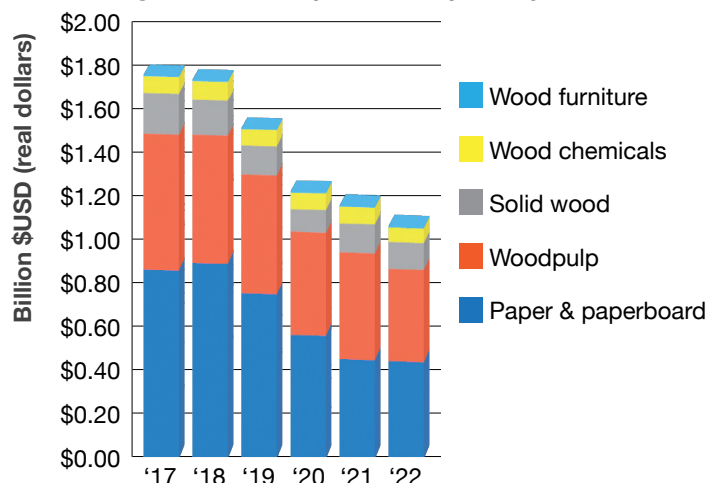
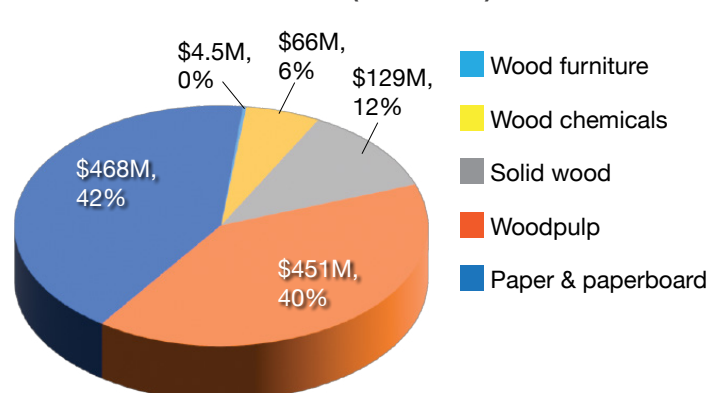


Fig. 3 - 2022 SC forest products Exports by sector
Million \$USD (real dollars)

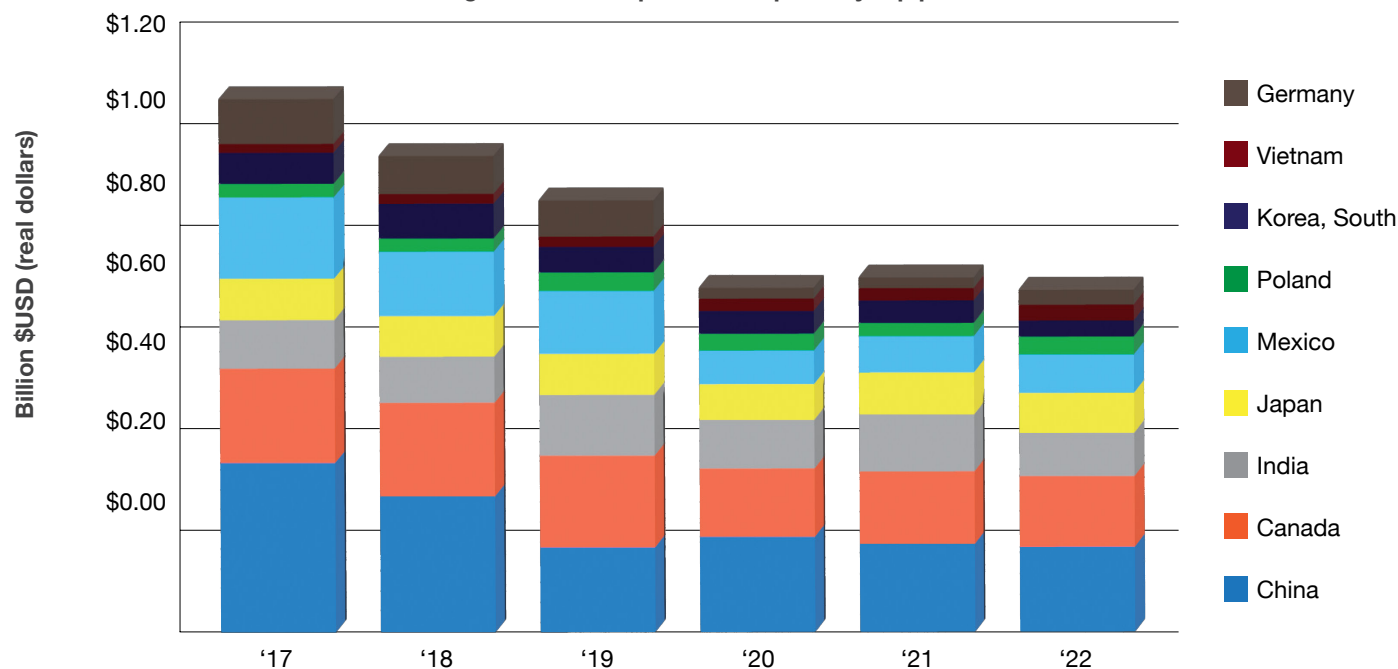


In 2022, South Carolina Forest products were exported to 129 different countries. The top five countries receiving SC exports were China, with \$170.5 million; Canada, with \$141.5 million; India, with \$86.7 million; Japan, with \$80.1 million; and Mexico, with \$76.7 million. The only partner who increased exports over 2021 was Mexico, with a 5.6% gain. The largest decline from 2021 was India with -24% (Fig. 4).

129
Countries SC
forest products
were exported to
in 2022

In what sector was each of our largest five trading partners most active? China imported \$96 million in wood pulp, India imported \$53 million in wood pulp, Japan imported \$59.8 million in wood pulp, and Mexico imported \$44.2 million in paper.

Fig. 4. SC forest products exports by top partners



SC exports vs. rest of US

South Carolina ranked 13th among all states in exports of forest products in 2022. This is one position lower than in 2021. When each product sector is reviewed, South Carolina was No. 2 in wood chemicals, No. 9 in wood pulp, No. 13 in paper & paperboard, No. 24 in solid wood products and No. 28 in wood furniture. This puts their ranking in the upper half or better in all sectors except wood furniture.

No. 13
SC's rank among
all states in
exports of forest
products

When all products exported from the US are taken into consideration, South Carolina ranks No. 19 out of all states, with a total of \$31.5 billion in exports. This puts the contribution of forest products at 4% of the total value of all exports from South Carolina. This is unchanged from 2021. The forest product sectors that ranked high in the sector list of total exports were paper and paperboard, which ranked No. 18 out of 97 sectors, and wood pulp, which ranked No. 26 out of 97 sectors.

No. 19
SC's rank among
all states in
exports of all
products from the
U.S.

Forest products total international imports

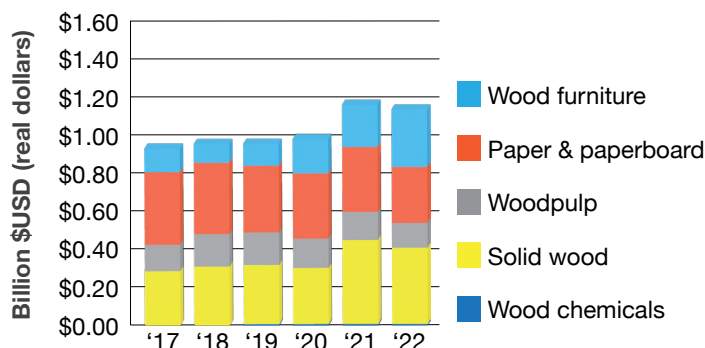
Imports of forest products for South Carolina were lower than exports until the global COVID-19 pandemic, around 2019-2020. At this time, imports surpassed exports and are now slightly ahead. The gap between the two widened to about \$404 million in 2021 and lessened in 2022 to \$254 million (Fig. 1).

**\$254
Million**
Gap between SC
forest product
imports & exports

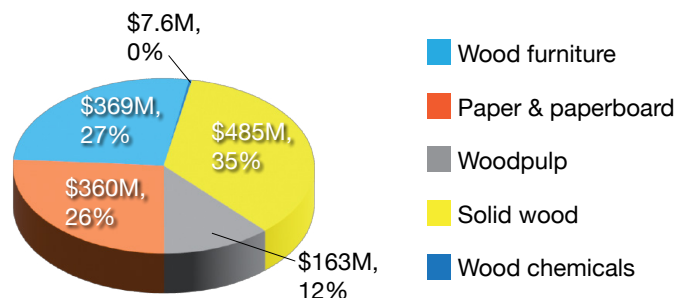
The largest sector for imports in 2022 was solid wood, with \$485 million. The sectors of paper & paperboard along with wood furniture were very close for second, with \$360 million and \$369 million, respectively. Next was woodpulp at \$163 million and finally wood chemicals at \$7.6 million (Figs. 5 and 6).

**\$485
Million**
Solid wood imports

Fig. 5 - SC forest products imports by sector



**Fig. 6 - 2022 SC forest products imports by sector
Million \$USD (real dollars)**



China is South Carolina's largest partner for imports of forest products at \$478 million. However, China only took the lead in 2022. Up until last year, our largest partner for imports has been Canada. These two countries will continue to play a large role in imports into our state.

PULP & PAPER MARKETS 2022

The effects of the pandemic continue to produce instability in the paper markets in 2022. Although the pandemic is over, 2022 started with lower global production/supply than demand. Along with these issues in the supply-demand curve, there were also supply chain issues as ships full of products sat off the coast at ports for weeks or months, waiting to be unloaded. The supply chain issues had been mostly resolved by the end of the year, but the global supply-demand issues will continue to be an issue at least throughout 2023.

As might be expected, when there are disruptions in any market, prices tend to get pushed higher. This is exactly what happened in the paper market in 2022. By the end of the first quarter, many paper companies increased prices for their products, and they were able to continue increasing prices for most of the year.

Producer price index by commodity: pulp, paper and allied products: wood pulp

Index	1/22	2/22	3/22	4/22	5/22	6/22	7/22	8/22	9/22	10/22	11/22	12/22
PPI Paper & Pulp	\$212	\$213	\$215	\$217	\$221	\$243	\$237	\$254	\$254	\$253	\$264	\$259

<https://fred.stlouisfed.org/series/WPU0911>

Along with the higher prices for finished products, the Russian invasion of Ukraine created uncertainty and shortages in the oil market which, in turn, raised fuel prices dramatically. These fuel increases were passed along by the raw material producers to the mills, as seen in the table below.

South Carolina delivered prices per ton

Index	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022
Pine Pulp	\$31.60	\$30.88	\$32.47	\$32.78	\$32.44	\$32.37
Hardwood Pulp	\$33.47	\$33.69	\$37.40	\$39.23	\$37.44	\$33.86

• Data from Timber Mart South Market Bulletin

SECTOR 1: PAPER AND PAPERBOARD

Exports

Paper and paperboard exports totaled \$469 million in 2022. This is down from \$484 million in 2021. Uncoated kraft paper (HTS 4804), which is used in packaging, accounted for 48% of the 2022 total. This seems reasonable since three of the seven paper-producing facilities in South Carolina produce at least a portion of these products (Fig. 7).

The five largest trade partners for these products were Canada with 21%, China with 10%, Mexico with 9%, and Germany and Chile with 5% each. These five partners total 50% of the total exports in dollars. Out of the top three partners, Canada, China and Mexico, only China increased over 2021 with 2%. These three countries are currently the most important partners for SC in this product sector, with China having the most upside (Fig. 8).

**\$469
Million**
2022 exports

-3%
2021-22 decline

Fig. 7. SC paper & paperboard exports & imports

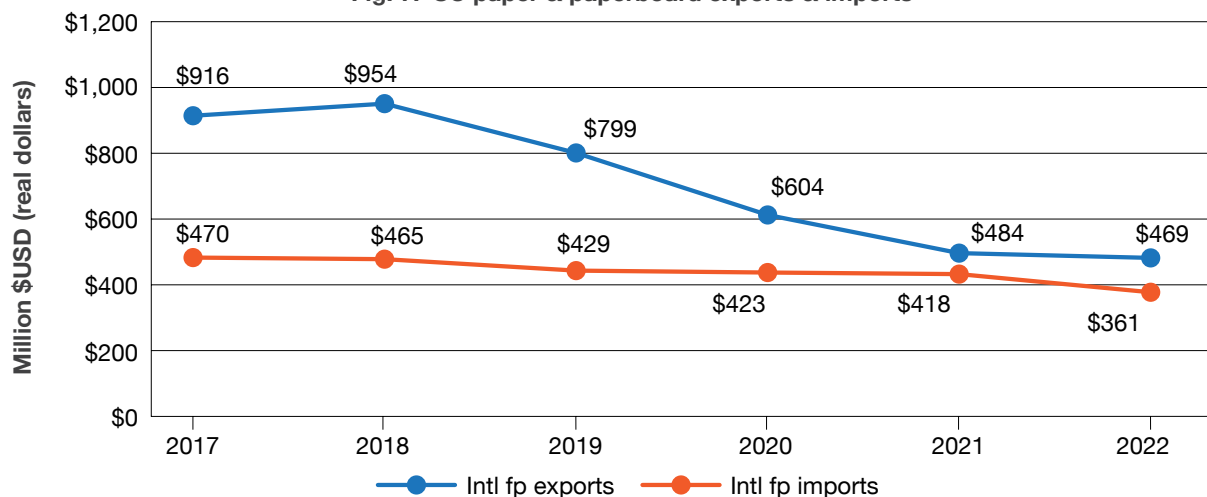
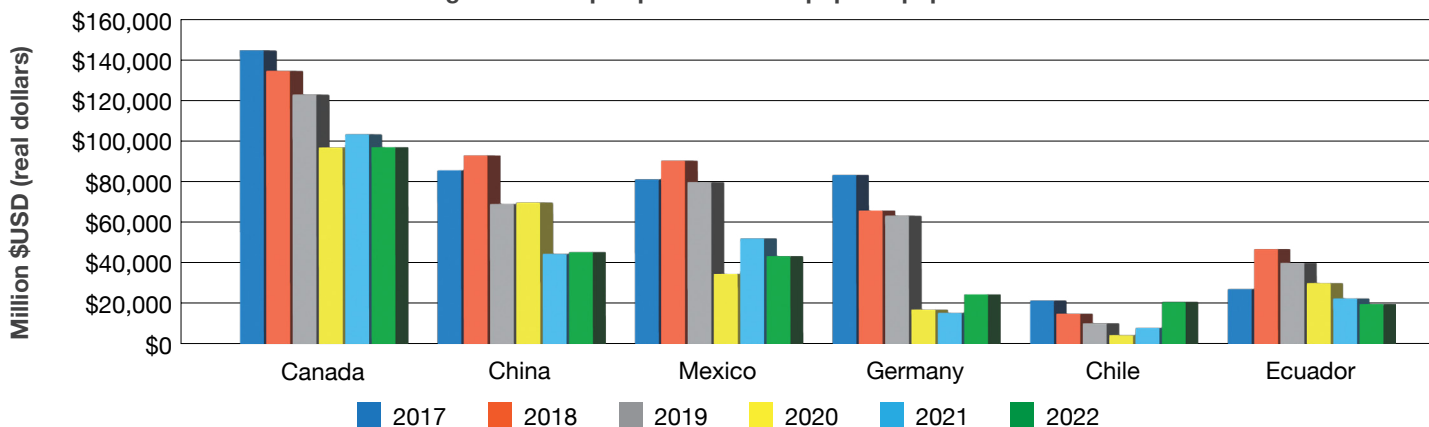


Fig. 8. 2022 top export countries paper & paperboard



Imports

The third largest forest products sector imported into South Carolina is paper and paperboard. This sector has a total import figure of \$361 million for 2022. This is down 14% from 2021 total of \$418 million. Imports in this sector have been steadily declining since 2017 (Fig. 7).

The main import products in this sector are paperboard and toilet paper. These two alone total \$117 million. The largest partners in this sector are China, Germany, Canada, the UK and France. These five partners total \$250 million.

**\$361
Million**
2022 imports

-14%
2021-22 decline

SECTOR 2: WOODPULP

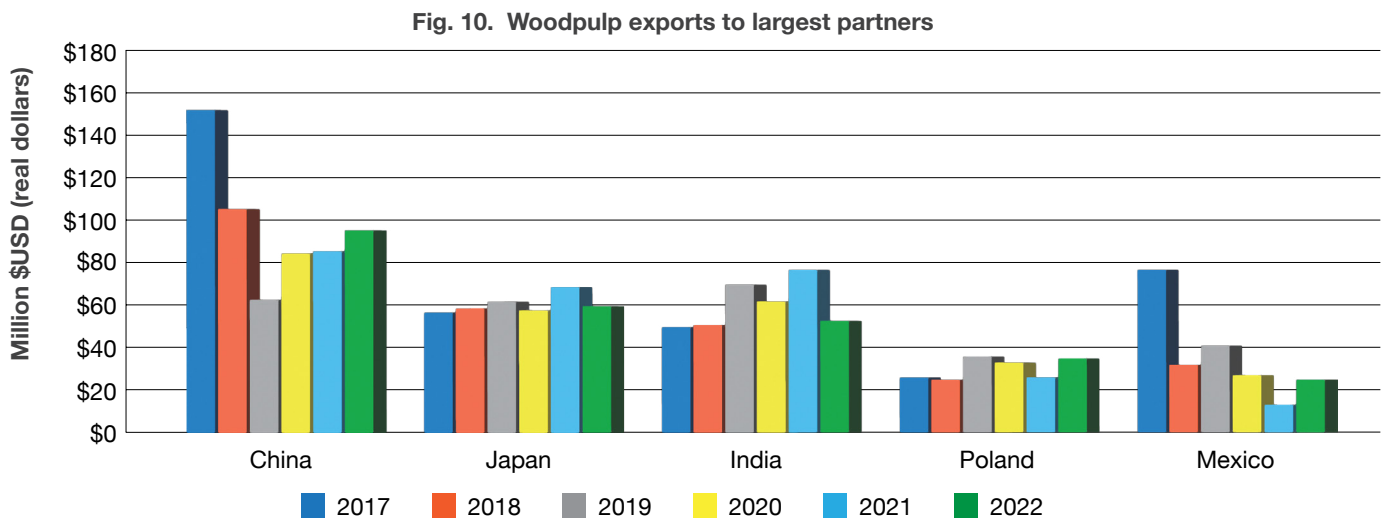
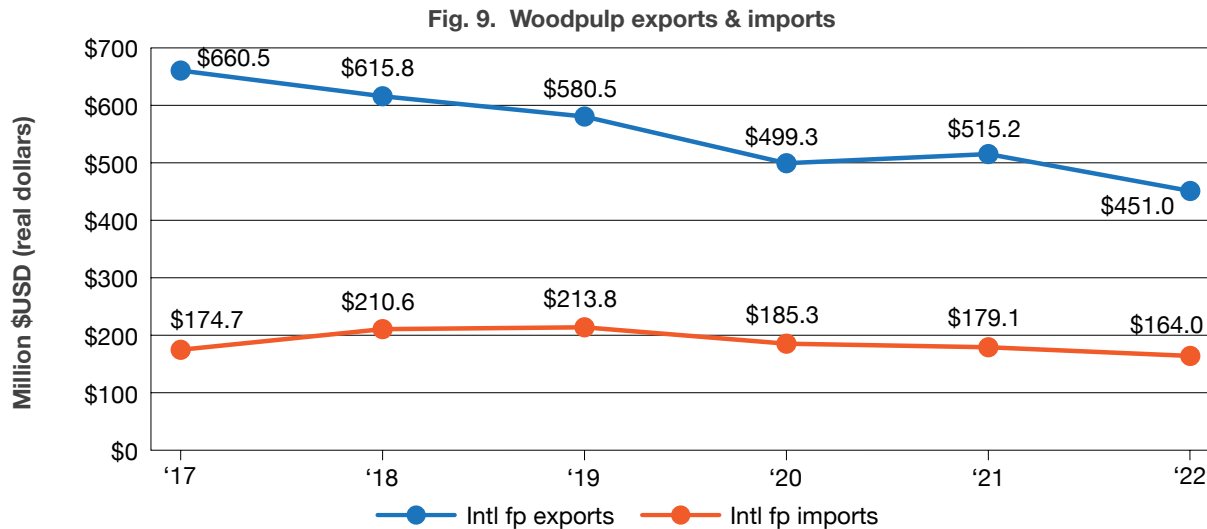
Exports

In 2022 South Carolina exported \$451 million in woodpulp. Compared to 2021, this is a decrease of \$64 million. Exports of woodpulp have been on the decline since 2017. Most of the exports from this sector (91%) are non-dissolving grade woodpulp, recovered paper and paperboard, or mechanical woodpulp (Figure 9).

The top markets for exports of woodpulp in 2022 were China, Japan and India, with China being the largest by over \$36 million. Combined, these three markets make up 46% of South Carolina's exports of woodpulp last year (Fig. 10).

**\$451
Million**
2022 exports

-12.4%
2021-22 decline



Imports

The fourth largest forest products sector imported into South Carolina is wood pulp. This sector has a total of \$164 million for 2022. This sector has declined each of the last three years. The most recent high was \$214 million in 2019 (Fig. 9).

The main product in this sector is chemical wood pulp, which consists of 99% of the total. The main two partners are Canada and Brazil, with Canada the leader by a wide margin. In 2022, South Carolina imported \$139 million from Canada and \$24 million from Brazil. There was no other country close to these two.

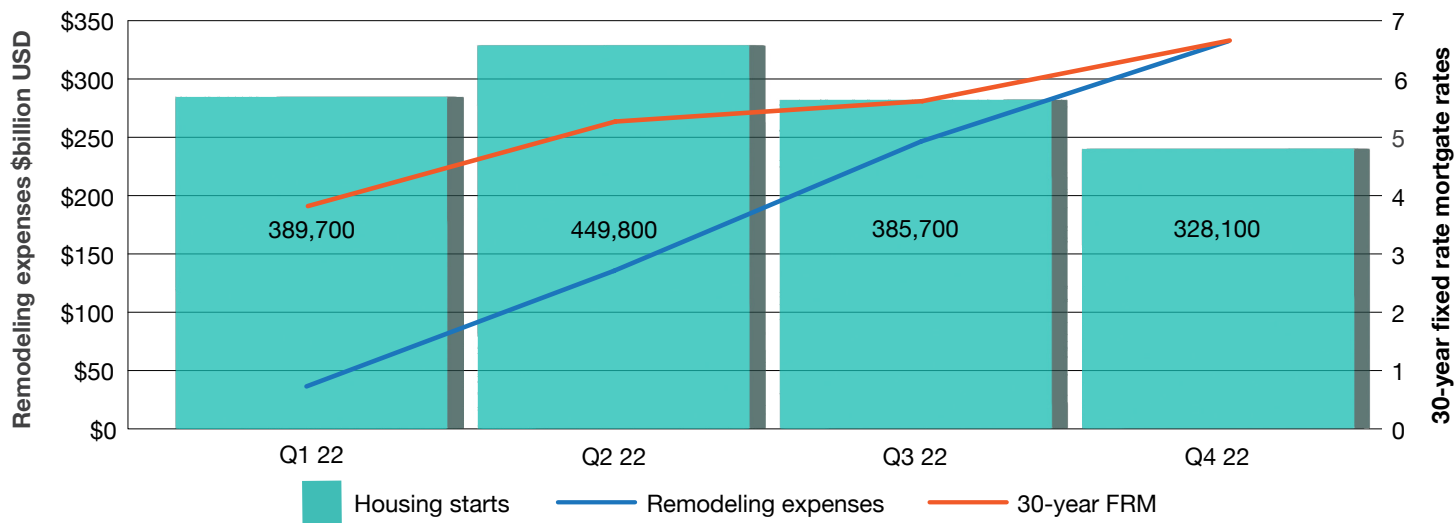
**\$164
Million**
2022 imports

-8.4%
2021-22 decline

SOLID WOOD MARKETS 2022

The market for pine solid wood, which includes lumber, plywood and oriented strand board (OSB), was well off the highs of 2020 and the first quarter of 2021. During that time, home improvement projects and lack of mill production caused prices for finished products to increase rapidly and stay up. In 2022, the home improvement craze diminished, mills were back to full run rates, and inflation became an issue for the first time in many years. The housing market started off the year strong, but as inflation continued to increase, so did interest rates on new home loans, bringing new home sales and housing starts down dramatically. Even though remodeling increased again in 2022, the increased volumes of solid wood used in remodeling did not make up for the loss in volume from slower housing starts. This caused prices to go down all year (Fig. 11).

Fig. 11. US housing starts, remodeling expenses & 30-year fixed rate mortgage rates



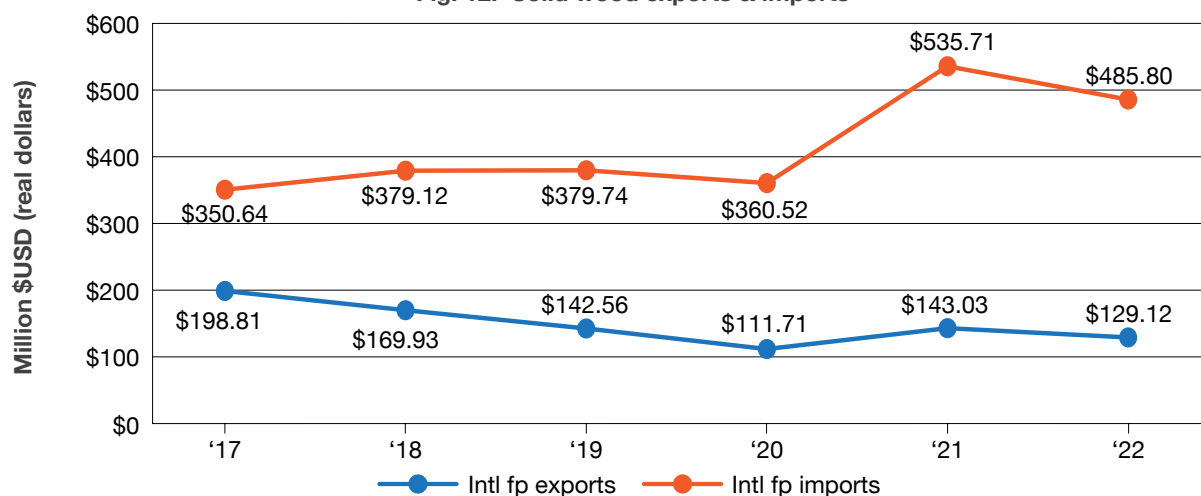
SECTOR 3: SOLID WOOD

Exports

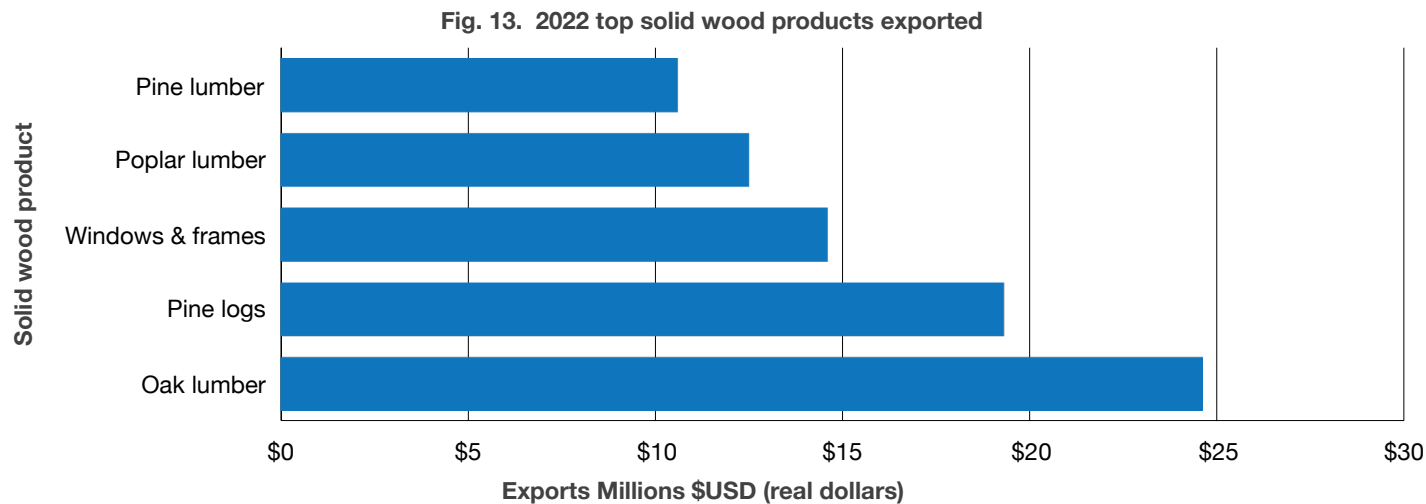
Exports of solid wood products totaled \$129.1 million in 2022. This value is 12% of the total forest products exports from South Carolina. This is a 10% decrease in total value from 2021, but a 16% increase over 2020 (Fig. 12).

\$129.1
Million
2022 exports

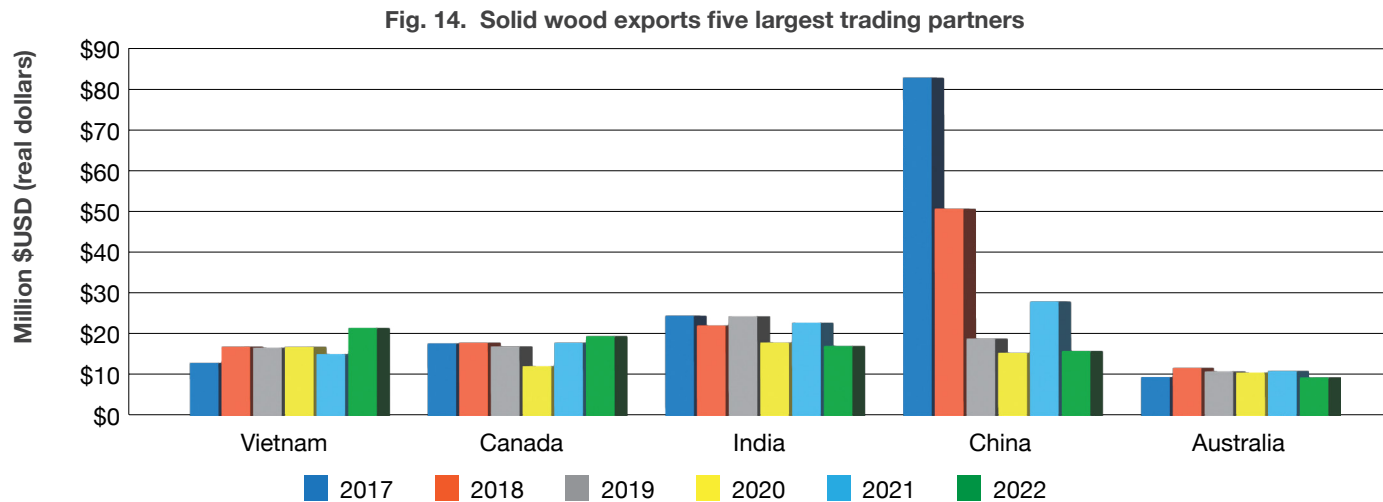
Fig. 12. Solid wood exports & imports



The product with the highest export value in this sector was oak lumber, with \$24.6 million. When oak lumber is combined with the other lumber products in the top five, the value is \$47.8 million, making lumber 37% of the total value of this sector. Logs amount to approximately 25% of this sector, so logs and lumber combined account for 62% of the sector (Fig. 13).



The largest trading partners in this sector for 2022 are Vietnam, Canada, India and China. Vietnam has a growing furniture industry that needs raw materials to continue producing finished products for this market. As you will notice in the import section of this report, Vietnam produces wood furniture from our solid wood and imports this furniture back to South Carolina. Vietnam will probably be a country that becomes even more important as an export partner in the future (Fig. 14).



Imports

The largest import sector is solid wood, with \$486 million imported by South Carolina. This is \$50 million less than the 2021 total, but \$125 million more than 2020. Overall, imports of solid wood have been increasing each year since 2017 (Fig. 12).

The main products imported are spruce/fir lumber, tongue and grooved boards, and builders’ joinery and carpentry. Also in the top 10 are medium-density fiberboard (MDF), plywood and OSB.

The largest trading partners are Brazil and Canada, with \$97 and \$94 million, respectively. Next in size of imports are Chile, Estonia and China. These five partners made up 68% of South Carolina’s solid wood imports in 2022.

\$486 Million
2022 imports

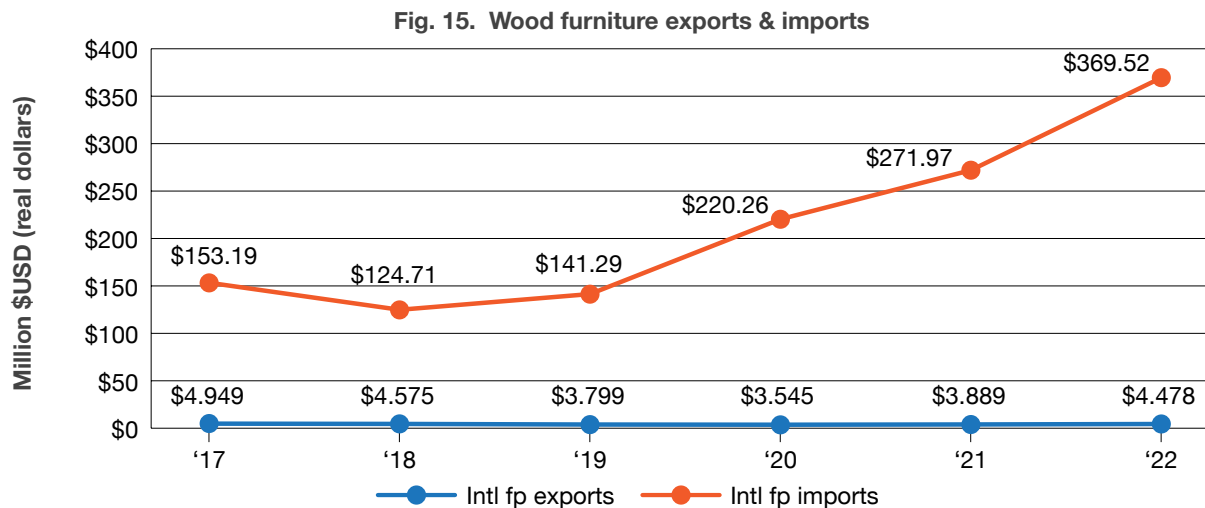
-9.3%
2021-22 decline

SECTOR 4: WOOD FURNITURE

Exports

Wood furniture is the smallest wood products export sector for South Carolina. South Carolina exports in this sector totaled \$4.5 million. The two largest products exported were seats with wooden frames at \$1.7 million and wooden furniture at \$1.6 million. The largest trading partners were Canada, Cayman Islands, Saudi Arabia, Mexico and China. Canada alone imported \$1.16 million from South Carolina which is 26% of the total. The recent upward trajectory since the pandemic is encouraging (Fig. 15).

**\$4.5
Million**
2022 exports



Imports

The second largest forest products sector for imports was wood furniture, with imports totaling \$370 million. In contrast, for exports, this is the smallest sector, totaling \$4.4 million (Fig. 15).

The largest import partner for this sector is Vietnam by a wide margin. In 2022, South Carolina imported \$166 million from Vietnam. The next closest partners were China and Malaysia, with \$58 and \$44 million, respectively.

**\$370
Million**
2022 imports

SECTOR 5: WOOD CHEMICALS

Exports

The total exports for the wood chemicals sector totaled \$66.4 million for 2022. This was 12% lower than in 2021. The main two products exported were residual lye from the production of wood pulp and tall oil. These two combined for a total of \$51.7 million, which is most of the exports. The main trading partner for the sector is China, with \$11.8 million. Other partners are Brazil, India, Canada, Netherlands and South Korea (Fig. 17).

**\$66.4
Million**
2022 exports

Imports

The smallest forest products sector for imports is wood chemicals. Total imports for this sector is only \$5.7 million (Fig. 16).

**\$5.7
Million**
2022 imports

The largest trading partners for this sector are Brazil, China and Germany. These three total \$5.4 million, with Brazil being the largest at \$3 million.

Fig. 16. Wood chemicals exports & imports

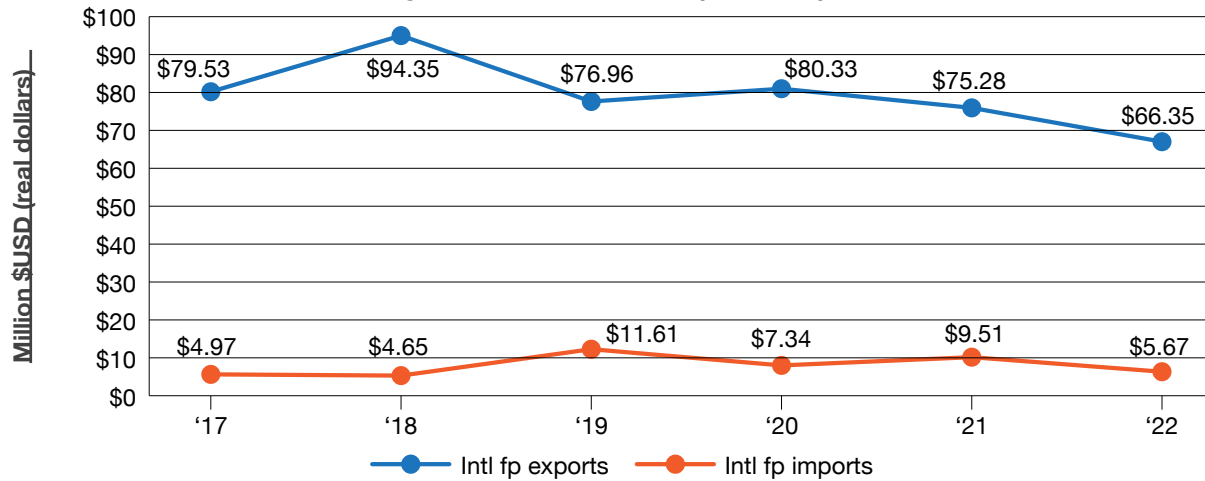


Fig. 17. SC forest products exports in 2022

Top 10 markets per sector by value (Millions \$USD and percentages)

Rank	Wood chemicals				Solid wood products				Woodpulp				Paper & paperboard				Wood furniture			
	Country	Exports millions \$USD	%		Country	Exports millions \$USD	%		Country	Exports millions \$USD	%		Country	Exports millions \$USD	%		Country	Exports millions \$USD	%	
1	China	\$11.79	18%		Vietnam	\$21.68	17%		China	\$96.09	21%		Canada	\$97.79	21%		Canada	\$1.16	26%	
2	Canada	\$9.01	14%		Canada	\$19.64	15%		Japan	\$59.77	13%		China	\$46.33	10%		Cayman Islands	\$0.83	18%	
3	Mexico	\$6.85	10%		India	\$17.24	13%		India	\$53.25	12%		Mexico	\$44.18	9%		Saudi Arabia	\$0.44	10%	
4	South Korea	\$6.22	9%		China	\$15.95	12%		Poland	\$35.22	8%		Germany	\$25.37	5%		Mexico	\$0.34	8%	
5	Brazil	\$4.94	7%		Australia	\$9.45	7%		Mexico	\$24.67	5%		Chile	\$21.60	5%		China	\$0.33	7%	
6	India	\$4.91	7%		Philippines	\$4.18	3%		Colombia	\$19.96	4%		Ecuador	\$20.49	4%		Chile	\$0.23	5%	
7	Netherlands	\$3.90	6%		Japan	\$4.01	3%		Italy	\$14.80	3%		Japan	\$14.53	3%		Qatar	\$0.19	4%	
8	Indonesia	\$2.74	4%		Pakistan	\$3.39	3%		Canada	\$13.92	3%		South Korea	\$14.06	3%		Barbados	\$0.15	3%	
9	Belgium	\$2.45	4%		Italy	\$2.60	2%		Turkey	\$12.76	3%		Netherlands	\$13.91	3%		Mauritania	\$0.10	2%	
10	Japan	\$1.82	3%		United Kingdom	\$2.59	2%		France	\$12.41	3%		Guatemala	\$11.50	2%		United Arab Emirates	\$0.09	2%	

 Africa |
 Asia |
 Australia & Oceania |
 Central/South America & The Caribbean |
 Europe |
 North America

Fig. 18. SC forest products imports in 2022

Top 10 markets per sector by value (Millions \$USD and percentages)

Rank	Wood chemicals				Solid wood products				Woodpulp				Paper & paperboard				Wood furniture			
	Country	Exports millions \$USD	%		Country	Exports millions \$USD	%		Country	Exports millions \$USD	%		Country	Exports millions \$USD	%		Country	Exports millions \$USD	%	
1	Brazil	\$3.05	39.9%		Brazil	\$97.24	20%		Canada	\$139.07	85%		China	\$74.78	21%		Vietnam	\$166.17	45%	
2	China	\$1.82	23.9%		Canada	\$94.71	19%		Brazil	\$24.39	15%		Germany	\$71.68	20%		China	\$58.73	16%	
3	Germany	\$0.50	6.5%		Chile	\$54.95	11%		Uruguay	\$0.39	0%		Canada	\$49.90	14%		Malaysia	\$44.18	12%	
4	Japan	\$0.09	1.1%		Estonia	\$44.08	9%		Chile	\$0.10	0%		United Kingdom	\$29.69	8%		Indonesia	\$20.29	5%	
5	Mexico	\$0.06	0.8%		China	\$40.42	8%		Germany	\$0.01	0%		France	\$23.72	7%		India	\$14.68	4%	
6	Belgium	\$0.06	0.7%		Indonesia	\$24.40	5%		Switzerland	\$0.00	0%		Vietnam	\$17.01	5%		Canada	\$14.40	4%	
7	France	\$0.05	0.7%		Vietnam	\$12.73	3%		Mexico	\$0.00	0%		Mexico	\$12.62	3%		Thailand	\$11.37	3%	
8	Canada	\$0.03	0.4%		Turkey	\$9.39	2%		China	\$0.00	0%		Austria	\$11.23	3%		Estonia	\$10.60	3%	
9	Italy	\$0.02	0.2%		Cambodia	\$9.27	2%		Colombia	\$0.00	0%		India	\$8.20	2%		Brazil	\$6.00	2%	
10	Netherlands	\$0.00	0.0%		Austria	\$9.23	2%		Czech Republic	\$0.00	0%		Italy	\$8.16	2%		Italy	\$6.00	2%	

 Asia |
 Australia & Oceania |
 Central/South America & The Caribbean |
 Europe |
 North America

NOTES

- This report focuses on international trade between South Carolina and the world. No data related to trade between states is included.
- All previous year dollars have been adjusted for inflation to the year 2022, using PPI and are shown as real dollars.
- Statistics and dollars related to international trade in equipment and machinery used to produce wood products are not included in this report.
- HTS: Harmonized Tariff Schedule Heading
- For the purpose of this report, the term “forest products industry” encompasses five main sectors: wood-based chemicals, solid wood products, woodpulp, paper & paperboard and wood furniture. This categorization is based on the Harmonized Tariff Schedule 2017 as follows: Solid wood products correspond to commodities included in chapter 44, paper & paperboard products are found in chapter 48, and woodpulp is found in chapter 47. The wood chemicals section comprises HTS numbers 3803, 3804, 3805, 3806, and 3807. And lastly, the wood furniture section includes 940151, 940152, 940153, 940161, 940169, 940191, 940330, 940340, 940350, 940360, 940381, 940382, 940383, 940391 and 940610.
- All trade figures are sourced from the U.S. Census Bureau’s website.



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The goal of this report is to provide timely information on international markets and export activities that are and will be relevant for the development of the South Carolina’s forest products industry. This document offers insights on international trade of the state’s forest products and the most promising destinations for each product category. Historic trade data is based on the U.S. Census Bureau’s “Origin of Movement (OM)” state export series, which is intended to measure state exports on the basis of transportation, not manufacturing origin. The included figures are presented to offer a perspective on the composition of exports from the state, on the basis of origin transportation.

